FINDING OF NO SIGNIFICANT IMPACT
FOR THE LOCKWOOD WATER AND SEWER DISTRICT'S
WATER SYSTEM IMPROVEMENTS

TO: ALL INTERESTED PERSONS

Date: November 26, 2007
Action: Constructing water system improvements
Location of Project: Billings, Montana
DWSRF Funding: $1,100,000.
Total Project Cost: $1,100,000.

An environmental review has been conducted by the Montana Department of Environmental Quality for the proposed construction of improvements to the Lockwood Water and Sewer District's water system. The proposed project involves the construction of a backup source water intake, a new booster pump station and a backup generator, along with associated appurtenances. The purpose of the project is to protect public health by providing needed redundancy in the water system infrastructure.

The affected environment will primarily be the area in the vicinity of the Lockwood irrigation canal and the Noblewood Booster Station. The human environment affected will include the Lockwood Water and Sewer District service area. Based on the information provided in the references below, the project is not expected to have any significant adverse impacts upon terrestrial and aquatic life or habitat, including endangered species, water quality or quantity, air quality, geological features, cultural or historical features, or social quality.

This project will be funded with a low-interest loan from the Montana Drinking Water State Revolving Fund (DWSRF) Program, administered by the Montana Department of Environmental Quality and the Montana Department of Natural Resources and Conservation.

The Department of Environmental Quality utilized the following references in completing its environmental review of this project:

- Lockwood Water and Sewer District Water System Master Plan Study, July 2006, prepared by HDR Engineering, Inc., Billings, Montana.
- Booster Station, Backup Intake Pump and Backup Generator Design Report, May 2007, prepared by HDR Engineering, Inc., Billings, Montana.
- Lockwood Water Treatment Plant and Distribution System Improvements 95% Drawings and Project Manual, July 2007, prepared by HDR Engineering, Inc., Billings, Montana.

In addition to these references, letters were sent to the Montana Department of Fish, Wildlife and Parks, the Montana Department of Natural Resources and Conservation, the Montana Department of Environmental Quality, the United States Army Corps of

Engineers, the U.S. Fish and Wildlife Service and the Montana State Historic Preservation Office. Responses were received from the U.S. Fish and Wildlife Service, the United States Army Corps of Engineers, the Montana Department of Fish, Wildlife and Parks and the Montana State Historic Preservation Office. These references are available for review upon request by contacting:

Gary J. Wiens, P.E.
Department of Environmental Quality
P.O. Box 200901
Helena, Montana 59620-0901
Phone: (406) 444-7838
Email: gwiens@mt.gov

Richard Koehn
Assistant Manager
Lockwood Water and Sewer District
1644 Old Hardin Road
Billings, Montana 59101

Comments on this finding or on the environmental assessment may be submitted to the Department of Environmental Quality at the above address. Comments must be postmarked no later than December 31, 2007. After evaluating substantive comments received, the department will revise the environmental assessment or determine if an environmental impact statement is necessary. Otherwise, this finding of no significant impact will stand if no substantive comments are received during the comment period or if substantive comments are received and evaluated and the environmental impacts are still determined to be non-significant.

Signed,

_____

Todd Teegarden, Chief
Technical & Financial Assistance Bureau

c: file

G:\TFA\DWSRF\PROJ\Lockwood2\FONSI.doc

LOCKWOOD WATER AND SEWER DISTRICT
WATER SYSTEM IMPROVEMENTS PROJECT

ENVIRONMENTAL ASSESSMENT

I. COVER SHEET

A. PROJECT IDENTIFICATION

Applicant:	Lockwood Water and Sewer District
Address:	1644 Old Hardin Road
	Billings, MT 59101
Project Number:	Not yet assigned

B. CONTACT PERSON

Name:	Richard Koehn, Assistant Manager
Address:	1644 Old Hardin Road
	Billings, MT 59101
Telephone:	(406) 259-4120

C. ABSTRACT

The Lockwood water system provides potable water to a population of 5983. Raw water obtained from the Yellowstone River through three submerged intake screens is treated in the district's water treatment plant. New bridge abutments have changed sediment deposition patterns so that the existing intakes are occasionally plugged. Frequent air purging is then necessary to clear the intakes; eventually costly dredging is needed to maintain flow into the plant. Algae, moss and ice jams can also block the intakes. The district proposes to construct a backup pump that would draw water from the Lockwood Irrigation District outlet structure, providing a redundant intake in the event the primary intakes are obstructed.

The district also proposes to install a backup power generator at the water treatment plant and to reconstruct the Noblewood Booster Station in order to increase its capacity and provide backup power generation facilities.

The proposed water system improvements will enable the district to maintain compliance with the Safe Drinking Water Act and will ensure that drinking water meeting state and federal regulations will continue to be safely and reliably provided to all consumers.

The project will be funded by a Drinking Water State Revolving Fund loan. Environmentally sensitive characteristics such as wetlands, floodplains and threatened or endangered species are not expected to be adversely impacted as a

consequence of the proposed project. No significant long-term environmental impacts were identified during the preparation of this document.

D. COMMENT PERIOD

Thirty calendar days.

II. PURPOSE AND NEED FOR ACTION

A. EXISTING WATER FACILITIES

The water plant was built in 1987 and has a treatment capacity of 3 million gallons per day. The treatment units include high-rate clarifiers and mixed media gravity filters, followed by a clearwell and high-service pumping. Raw water is drawn from the Yellowstone River through intakes that are occasionally plugged by sediment, algae, moss or ice. By adding a pump and a new intake to draw water from the adjacent irrigation ditch, reliability of the source water supply will be ensured.

The water treatment plant currently has no provisions for backup power in the event of a power failure. As part of this project, the district would purchase and install a 400-kVA backup power generator on the premises of the water treatment plant, which would provide power to all necessary components of the plant, ensuring continuous operation.

The district has two pressure zones in the distribution system. The low zone covers 95 percent of the service area. The smaller mid zone is served by the Westgate Booster Station, which lacks backup power and cannot provide the minimum fire flow required for this zone. The district proposes to replace this booster station with a facility at a new location, the Noblewood Booster Station, which will have increased capacity, a fire flow pump and a backup power generator.

B. PROPOSED PROJECT

The proposed project includes the following improvements:

1. Installation of a new submersible intake pump near the district's treatment plant site and piping from the adjacent Lockwood Irrigation outlet structure,
2. Installation of a backup power generator at the water treatment plant,
3. Construction of a pre-engineered booster pump station along with associated appurtenances, valves and site work.

By constructing the new facilities, the district will ensure that an adequate supply of safe water will continue to be delivered to the users of the system and public health and safety with respect to the water supply will be ensured.

III. ALTERNATIVES INCLUDING THE PROPOSED ACTION

A. STORAGE ALTERNATIVES

Two alternatives for addressing the district's needs were considered:

1. DO NOTHING – Continued reliance on the existing facilities alone could jeopardize the district's raw water supply or its ability to serve the mid pressure zone of the distribution system, leaving some or all customers without water.

2. PROPOSED PROJECT – Construct the project as proposed, adding a new intake pump and backup power generator at the treatment plant site and construction of a new booster pump station.

B. COST/BENEFIT COMPARISONS

A detailed cost/benefit comparison was not performed for this project. During the preliminary engineering process the most cost-effective materials, equipment and other design elements were incorporated into the project.

C. TOTAL ESTIMATED COSTS

The estimated total cost of the proposed project is $1,100,000, based on the proposed scope of work. The district anticipates receiving a State Revolving Fund loan of $1,100,000. No water rate increases are expected as a direct result of this project

IV. AFFECTED ENVIRONMENT

A. PLANNING AREA

The Lockwood Water District is located in Yellowstone County on the outskirts of Billings. According to the State Revolving Fund loan application, the district provides water service to 5983 people with 1640 service connections. According to the 2000 census, the median household income was $34,768 and the median income for a family was $37,965.

Construction of the proposed project is expected to take approximately two months after commencement of contract time. Construction is anticipated to begin in early 2008.

B. FLOW PROJECTIONS

The district's water plant has a design capacity of 3 million gallons per day and is able to meet current demands with daytime operation alone.

C. NATURAL FEATURES

Lockwood is an unincorporated suburb of Billings, located in Yellowstone County in south central Montana along the Yellowstone River. Yellowstone County, with rich soil, a major river aquifer and a moderate climate, has three different growing zones and is the most productive county in agricultural products in Montana. Cattle, wheat, malting barley and sugar beets dominate, although pinto beans, corn, sheep, hogs, turkeys, vegetables and melons are cultivated commercially as well. The native vegetation of this area is largely grassland and prairie.

In summer, temperatures can rise above 100 degrees Fahrenheit, while winter can bring temperatures well below zero. Snowfall typically averages about 57 inches a year, but because of warm Chinook winds that pass through the region between December and March, snow does not usually accumulate. Autumn in Billings is usually mild. Winds, while strong at times, are generally light compared to the rest of Montana and the Rocky Mountain front

A portion of the project area is adjacent to but not within the 100-year floodplain, as defined by the Federal Emergency Management Agency maps.

The U.S. Fish & Wildlife Service identifies seven species in Montana as endangered and eight species as threatened. The endangered animal species include the whooping crane, Eskimo curlew, black-footed ferret, pallid sturgeon, white sturgeon, least tern and gray wolf. Threatened animal species in the state include the grizzly bear, bald eagle, Canada lynx, piping plover and bull trout. Threatened plant species are the Spalding's catch-fly, water howellia and Ute Ladies'-tresses. Additionally, three animal species, the warm springs beetle, yellow-billed cuckoo and arctic grayling, and one plant species, the slender moonwort, are listed as candidate species for a threatened or endangered designation.

All construction will take place on the site of the existing water treatment plant and a parcel purchased by the district for the Noblewood Booster Station. No native vegetation is expected to be disturbed by the construction. Similarly, the site does not provide any prime habitat for wildlife, and as a result, no impacts on wildlife are anticipated.

V. ENVIRONMENTAL IMPACTS OF PROPOSED PROJECT

A. DIRECT AND INDIRECT ENVIRONMENTAL IMPACTS

1. Housing and Commercial Development – Developed land use within the district is a mix of residential, commercial and industrial. Although intended to accommodate anticipated growth, the proposed improvements are not expected to have an impact on housing, industrial or commercial development.

2. Future Land Use – No adverse impacts to land use are expected from the proposed project.

3. Floodplains and Wetlands – The site for the proposed construction of the new intake is close to but not within the designated 100-year floodplain. No wetlands have been identified on any of the proposed construction sites. Since the project area contains jurisdictional waters of the United States, a permit from the United States Army Corps of Engineers may be required. When final design is complete, an application will be submitted to the Corps.

4. Cultural Resources – The construction sites are located on previously disturbed land. After reviewing the project description, Damon Murdo of the State Historic Preservation Office concluded that there is a low probability cultural properties will be impacted; therefore, a cultural resource inventory is not warranted. However, he recommended that the Historic Preservation Office be contacted in the event cultural resources are identified during construction.

5. Fish and Wildlife – No impacts on biological resources in the area are anticipated by the proposed project.

6. Water Quality – Impacts on water quality are expected to be minor and short-term. Short-term impacts on water quality can be controlled through proper construction practices.

7. Air Quality - Short-term negative impacts on air quality may occur from heavy equipment, dust and exhaust fumes during project construction. Construction practices and dust abatement measures will be implemented during construction to control dust, thus minimizing this problem.

8. Public Health – The proposed project is not expected to have any adverse impacts on public health, and should instead enhance public health by upgrading source water and distribution facilities.

9. Energy - During construction of the proposed project, additional energy will be consumed, causing a direct short-term impact on this resource.

10. Noise - Short-term impacts from increased noise levels may occur during construction of the proposed project improvements. Construction activities are anticipated to last about a month and will occur only during daylight hours.

B. UNAVOIDABLE ADVERSE IMPACTS

Short-term construction-related impacts, such as noise, dust and traffic disruption, will occur but can be minimized through proper construction management. Energy consumption during construction cannot be avoided.

VI. PUBLIC PARTICIPATION

On July 18, 2006, the district's consultants presented a summary of the district's master plan to the Lockwood Water and Sewer District board and staff and interested public. Aside from concerns about the cost of the proposed improvements and the potential impacts on water rates, the response was generally favorable.

VII. REFERENCE DOCUMENTS

The following documents were used in the environmental review of this project and are considered to be part of the project file:

.

A. Lockwood Water and Sewer District Water System Master Plan Study, July 2006, prepared by HDR Engineering, Inc., Billings, Montana.

B. Booster Station, Backup Intake Pump and Backup Generator Design Report, May 2007, prepared by HDR Engineering, Inc., Billings, Montana.

C. Lockwood Water Treatment Plant and Distribution System Improvements 95% Drawings and Project Manual, July 2007, prepared by HDR Engineering, Inc., Billings, Montana.

VIII. RECOMMENDATION FOR FURTHER ENVIRONMENTAL ANALYSIS

❑ EIS ❑ More Detailed EA ❑ No Further Analysis

EA prepared by:

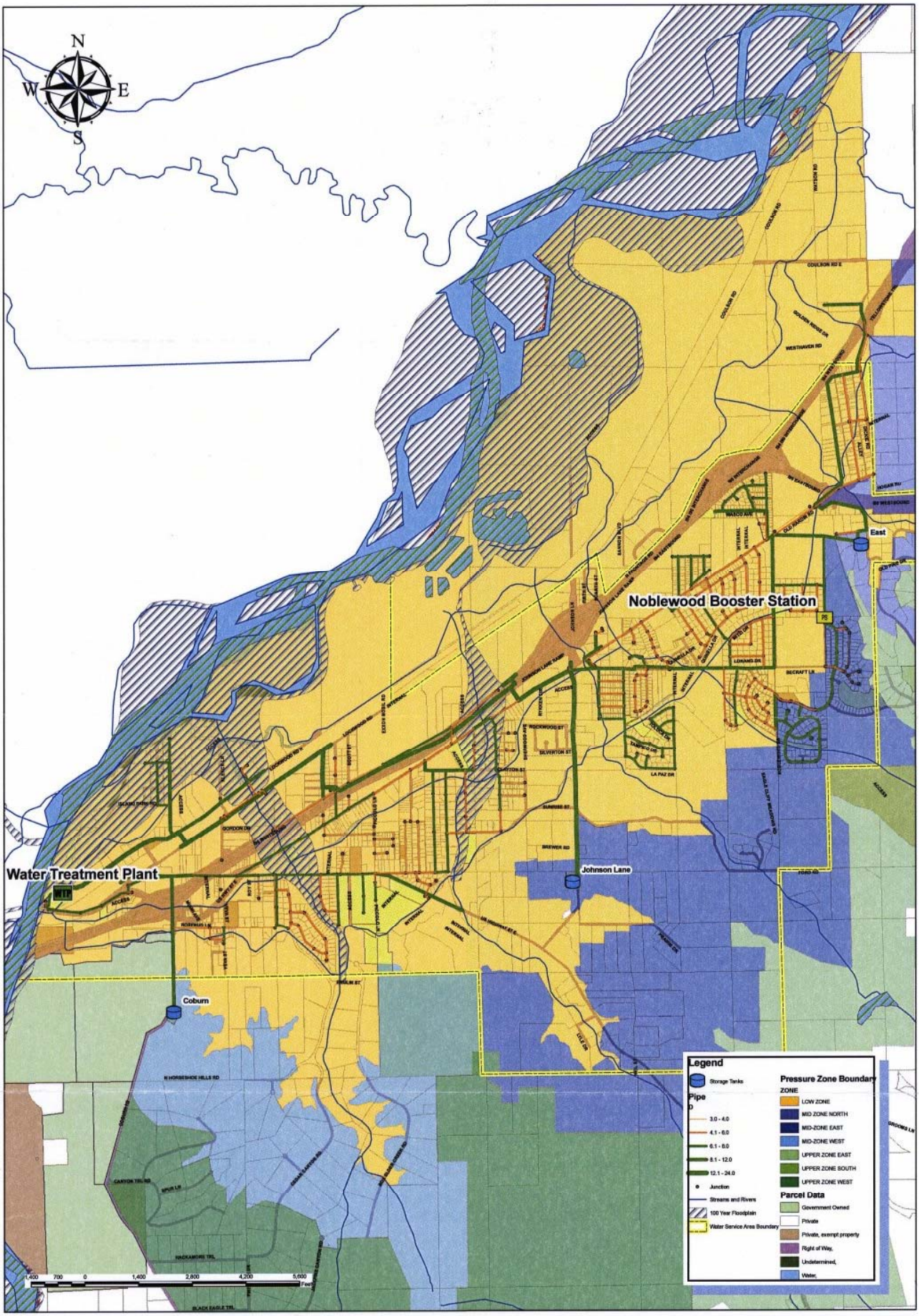
_____ _____

Name Date

EA reviewed by:

_____ _____

Name Date



LOCKWOOD Water & Sewer District	**Lockwood Water and Sewer District** **Water Treatment Plant and Distribution System Improvements** HDR	DATE August 2007 FIGURE 1